EDITORIAL.

THERE ARE many botanists who are in no position to do conspicuous work, and it is perhaps fortunate for botany that this is true. It is certain, at least, that the opportunity of doing good work in a very conspicuous way does not always reflect great credit upon the worker. At the same time, these botanists are desirous of doing some sort of work, and of not doing it at random. There is work and work in botany, and much of it is like moving a pile of bricks back and forth from one side of a field to the other; it may be good exercise, but a dreadfully uninspiring result. It is like teaching a class to do nothing but name plants, which one of our bright botanists says is like chasing a woodchuck into a hole—one has nothing to show for it but the hole. All botanical work should mean something; should be some little contribution toward a better knowledge of botany. There is a very hopeful field of work that can be cultivated by these isolated botanists who are desirous of doing something of value, especially hopeful because it is so exhaustless. Systematic botany will never reach its highest expression until there is complete knowledge of the minute as well as the gross anatomy of all groups of plants. So little is our knowledge, comparatively speaking, of this extensive field, that no generalizations can yet be attempted, and every good worker with a microscope can easily become a contributor. The work will have to be done in this piecemeal way by very many investigators, and no one need fear that this sort of work will soon "run out." Two closely allied groups of plants would form a fine subject for any one's investigation as to their comparative anatomy. It is hardly necessary to say that we do not refer to the casual comparison of a few sections, but to that patient, laborious, "over-and-over" study of every tissue which alone will bring permanent results. This is suggested as one field of work among many, especially convenient to those who are fond of using the microscope, and possibly useful in saving them from that aimless frittering away of strength which is too apt to be the fate of the owner of a microscope.

OPEN LETTERS.

Michigan Forestry Commission.

Michigan has long been prominent for the large amount of its timber. The rapid disappearance of this by cutting and fires has caused some to begin to study the subject with reference to legislation. Instead of enacting laws hastily last winter, the Legislature made the State Board of Agriculture a forestry commission, with $1,000 at their disposal. Hon. C. W. Garfield and the writer are the directors of this commission. We are to make investigations and report to the Governor, with recommendations as to any needed legislation. In studying the subject it is

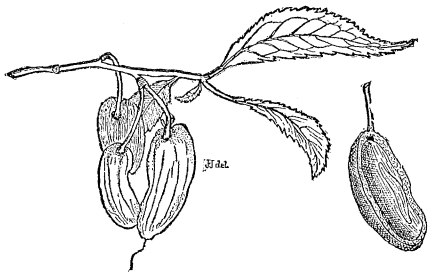
thought very desirable to select three to six townships of land, which shall be held as a forest reserve. Here nature should take possession; the woody plants and herbs and the harmless game should be protected.

In the recently established experiment station of the Agricultural College some attention is to be given to the "jack-pine" lands, or pine plains, where Pinus Banksiana is the leading tree. The authorities have stations already started in five counties, viz.: Lake, Clare, Iasco, Crawford and Grand Traverse. Here the pine plains land is to be tested with grasses, other forage plants and forest trees. W. J. BEAL.

Agricultural College, Mich.

Diseased plums.

The accompanying drawing (half natural size) represents an abnormal growth of the plum (Prunus Americana), produced in consequence of the attack of a fungus. The ovary has been swollen into an inflated sac, with thick and spongy walls, and occasionally contains an elongated body, apparently the aborted ovule. The fungus causing the abnormality is known as Ascomyces Pruni, or Exoascus Pruni, or Taphrina Pruni. The reproductive bodies appear as a white powdery substance on the outside of the swollen sac. Has this species been recorded in this country before now?



Oxford, Ohio. JOSEPH F. JAMES.

Proterogynous Umbelliferæ.

In the May number of the GAZETTE, p. 134, Prof. Trelease has again started the question of proterogyny in Umbelliferæ.

In 1887 I made a special study of the floral characters and insect visitors of most of the species growing in my neighborhood, and I may give the general result of my observations, although I must refer the reader to a forthcoming paper for my mature views and for the details on which those views rest.

In my opinion Hydrocotyle umbellata (observed at Orlando, Fla.), Eulophus Americanus, Cicuta maculata, Sium cicutæfolium, Osmorhiza longistylis, Pastinaca sativa and Heracleum lanatum are proterandrous.

Sanicula Canadensis, Cryptotænia Canadensis and Chærophyllum procumbeus are synacmic.

Sanicula Marylandica, Erigenia bulbosa, Zizia aurea, Pimpinella integerrima and Polytænia Nuttallii are proterogynous.

Carlinville, Ill. CHARLES ROBERTSON.